REMARKS

Applicants thank the Examiner for the Examiner's timely and thorough search of the art and Office Action. Applicants, by this Amendment, have amended the Claims to overcome all deficiencies noted in the Examiner's Office Action. No new matter has been entered by this Amendment. After entry of this Amendment, Claims 7, 17 - 19, 25 -31, 37 - 53 and 58 - 71 remain pending in the Application.

CLAIM REJECTIONS

In the Office Action, the Examiner rejected Claims 1, 8, 13, 22, 32 and 55 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,175,333 to Smith et al. (hereinafter referred to as "Smith") in view of U.S. Patent 3,618,104 to Behr (hereinafter referred to as "Behr").

According to the Examiner, as to Claims 1, 8, 13, 22, 32 and 55, FIG. 9 of Smith discloses an array with a first row of receive elements (100), a first row of equal number transmit elements (101) and a second row or receive elements (100). The Examiner pointed out that FIG. 13 discloses many such rows. According to the Examiner, in both FIGs. 9 and 13 the receiving elements are aligned with respect to a corresponding transmitting element disposed in the transmitting row with a unique spacing. The Examiner stated that Smith does not disclose ultra wideband antenna elements.

The Examiner stated that FIG. 1 of Behr discloses a ground plane (18) with an antenna element affixed to a first surface of the ground plane for a device than can emit and receive ultra wideband signals. The Examiner stated that the antenna element has a tab (40).

According to the Examiner, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the antenna element disclosed in Behr in the antenna array disclosed in Smith for wider band performance as disclosed in Behr.

Claims 1, 8, 13, 22 - 24, 32, 35 - 36, 55 and 57 have been canceled by this Amendment without prejudice. Applicants respectfully disagree with the Examiner's rejection of Claims 1, 8, 13, 22, 32 and 55 under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Behr. Applicants intend to traverse the Examiner's rejection of Claims 1, 8, 13, 22, 32 and 55 under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Behr and pursue the subject matter covered by Claims 1, 8, 13, 22 - 24, 32, 35 - 36, 55 and 57 in a subsequently filed continuing application.

The Examiner continued in the Office Action, rejecting Claims 23 – 24, 35, and 57 under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Behr and further in view of U.S. Patent 5,323,169 to Koslover (hereinafter referred to as "Koslover").

As to Claims 23 – 24, 35 and 57, the Examiner asserted that Behr discloses a coaxial cable coupled to the antenna tab, not a waveguide coupled to the tab. The Examiner asserted that Koslover discloses using a waveguide feed for an ultra wideband antenna for improved gain characteristics (referring to Abstract; Koslover).

According to the Examiner, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a waveguide as disclosed in Koslover with the antenna element disclosed in Behr for improved gain characteristics. Claims 1, 8, 13, 22 - 24, 32, 35 - 36, 55 and 57 have been canceled by this Amendment without prejudice. Applicants respectfully disagree with the Examiner's rejection of Claims 23 - 24, 35, and 57 under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Behr and further in view of Koslover. Applicants intend to traverse the Examiner's rejection of Claims 23 - 24, 35, and 57 under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Behr and further in view of Koslover and pursue the subject matter covered by Claims 1, 8, 13, 22 - 24, 32, 35 - 36, 55 and 57 in a subsequently filed continuing application.

ALLOWABLE SUBJECT MATTER

Continuing in the Office Action, the Examiner allowed Claims 7, 17 - 19 and 50 - 53.

The Examiner stated that Claims 25-31, 36-49 and 58-71 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 25 - 31, 36 - 49 and 58 - 71 have been rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants respectfully request an extension of the period for response to the Office Action for one month until December 25, 2004, and the required fee under 35 U.S.C. 1.17(a)(1) is enclosed with this response.

Since Applicants have fully and completely responded to the Official Action, this Application is now in order for early action and such early action is respectfully requested. If the Examiner would deem a telephone conference to be of value in expediting this Application, he is invited to call the undersigned attorney at (972) 758-1955 at his convenience.

Respectfully submitted?

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I certify that this document is being deposited on December 17, 2004, with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to Commissioner for Patents, P.O. Box 1450.

Alexandria, VA 22313-1480.

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